UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. | |
|---|------------------------------|----------------------|---------------------|------------------|--|
| 10/533,960 | 05/04/2005 | Wen Zhao | PAT 799W-2 | 8081 | |
| 26123 7590 06/06/2008 BORDEN LADNER GERVAIS LLP Anne Kinsman WORLD EXCHANGE PLAZA | | | EXAMINER | | |
| | | | LY, NGHI H | | |
| | FREET SUITE 1100 | | ART UNIT | PAPER NUMBER | |
| OTTAWA, ON CANADA | OTTAWA, ON K1P 1J9 CANADA | | | 2617 | |
| | | | | | |
| | | | NOTIFICATION DATE | DELIVERY MODE | |
| | | | 06/06/2008 | ELECTRONIC | |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ipinfo@blgcanada.com aarmstrongbaker@blgcanada.com akinsman@blgcanada.com

| | Application No. | Applicant(s) | | |
|--|---|--|--|--|
| | 10/533,960 | ZHAO ET AL. | | |
| Office Action Summary | Examiner | Art Unit | | |
| | Nghi H. Ly | 2617 | | |
| The MAILING DATE of this communication app Period for Reply | ears on the cover sheet with the c | orrespondence address | | |
| A SHORTENED STATUTORY PERIOD FOR REPLY WHICHEVER IS LONGER, FROM THE MAILING DA - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication. - If NO period for reply is specified above, the maximum statutory period v - Failure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b). | ATE OF THIS COMMUNICATION 36(a). In no event, however, may a reply be tim vill apply and will expire SIX (6) MONTHS from cause the application to become ABANDONE | N. nely filed the mailing date of this communication. D (35 U.S.C. § 133). | | |
| Status | | | | |
| Responsive to communication(s) filed on <u>03 Agrae</u> This action is FINAL . 2b) ☑ This Since this application is in condition for allowar closed in accordance with the practice under Egyptimes. | action is non-final. nce except for formal matters, pro | | | |
| Disposition of Claims | | | | |
| 4) Claim(s) 2-10 and 12-27 is/are pending in the a 4a) Of the above claim(s) is/are withdray 5) Claim(s) is/are allowed. 6) Claim(s) 2-10 and 12-27 is/are rejected. 7) Claim(s) is/are objected to. 8) Claim(s) are subject to restriction and/or Application Papers | vn from consideration. | | | |
| 9) The specification is objected to by the Examine 10) The drawing(s) filed on is/are: a) acce Applicant may not request that any objection to the Replacement drawing sheet(s) including the correct 11) The oath or declaration is objected to by the Ex | epted or b) objected to by the Eddrawing(s) be held in abeyance. See ion is required if the drawing(s) is obj | e 37 CFR 1.85(a). jected to. See 37 CFR 1.121(d). | | |
| Priority under 35 U.S.C. § 119 | | | | |
| 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. | | | | |
| Attachment(s) 1) \[\sum \text{Notice of References Cited (PTO-892)} \] | 4) ☐ Interview Summary | (PTO-413) | | |
| 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date 03/19/08. | Paper No(s)/Mail Da 5) Notice of Informal P 6) Other: | ate | | |

Application/Control Number: 10/533,960

Art Unit: 2617

DETAILED ACTION

Page 2

Information Disclosure Statement

1. The information disclosure statement filed 03/19/08 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

The **CN100334894** fails to provide a legible copy of each cited foreign patent document.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 2-6, 8-10 and 12-27 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-14 of copending Application No. US 11928848 (Zhao et al). Although the conflicting claims are not identical, they are not patentably distinct from each other because:

Regarding claims 12 and 21, Zhao teaches a method of automatically reestablishing a data connection on a wireless data network (see claims 1 and 10), comprising: determining, at minimum fixed time intervals determined by a service check timer, the status of a previously established data connection (see claims 1 and 10), automatically transmitting a connection request if the previously established data connection is determined to be lost (see claims 1 and 10), and re-establishing the previously established data connection if the transmitted connection request is accepted by the wireless data network (see claims 1 and 109).

Regarding claims 2 and 22, Zhao teaches the wireless data network is a CDMA2000 network (see claim 11).

Regarding claim 3, Zhao teaches determining that no data connection is previously established includes receiving a refusal of service message from the wireless data network (see claims 10 and 13).

Regarding claims 4 and 9, Zhao teaches the refusal of service message is one of Retry Order, Reorder Order and a Release Order (see claims 10 and 13 and see claims 4, 7, 12 and 14).

Regarding claim 5, Zhao teaches further including initializing a back off timer on receipt of the refusal of service message (see claim 9).

Art Unit: 2617

Regarding claim 6, Zhao teaches the refusal of service message is an Intercept Message (see claim 9).

Regarding claim 8, Zhao teaches the back off timer is initialized to a time greater than or equal to any back off timer time calculated after a last previously established data connection (see claims 3, 4, 10, 12 and 13).

Regarding claim 10, Zhao teaches the back off timer is initialized to a time greater than or equal to the retry delay (see claims 4 and 12).

Regarding claim 13, Zhao teaches determining the status of the previously established data connection is preceded by initializing the service check timer (see claims 2 and 3).

Regarding claim 14, Zhao teaches the step of automatically transmitting the connection request is performed upon expiry of a back off timer (see claims 2 and 3).

Regarding claim 15, Zhao teaches the back off timer is initialized to a value based on a retry delay determined in response to a refusal of service message (see claims 2, 3 and 9).

Regarding claim 16, Zhao teaches determining the status of the previously established data connection includes comparing assigned network resources to default values (see claim 5).

Regarding claim 17, Zhao teaches the step of comparing includes determining that no data connection is established when an assigned Internet Protocol address is set to 0.0.0.0.0 (see claim 6).

Regarding claim 18 and 25, Zhao teaches a step of forcing premature expiry of the service check timer upon receipt of a Release Order (see claims 4, 7, 12 and 14).

Regarding claim 19, Zhao teaches the Release Order is a Point-to-point-protocol termination request (see claim 8).

Regarding claim 20, Zhao teaches the connection request is an Origination Message (see claim 9).

Regarding claim 23, Zhao teaches the connection manager includes means to reset the back off timer in response to the receipt of one of a Retry Order, Reorder Order and a Release Order (see claims 4, 7, 12 and 14).

Regarding claim 24, Zhao teaches the connection manager includes an accumulator for tracking consecutive rejections of service, and means to reset the back off timer in accordance with the number of consecutive rejections (see claims 10 and 13).

Regarding claim 26, Zhao teaches the means to reset the back off timer includes means to reset the back off timer such that the back off time is greater than, or equal to, a retry delay determined in response to a Retry Order or a Release Order (see claims 4, 7, 12 and 14).

Regarding claim 27, Zhao teaches the connection request is automatically transmitted upon detection of a new wireless data network (see claims 1 and 3).

This is a <u>provisional</u> obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Art Unit: 2617

4. Claim 7 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-14 of copending Application No. US 11928848 (Zhao et al) in view of Marry et al (US 4,827,507).

Regarding claim 7, Zhao teaches claims 2-6, 8-10 and 12-27. Zhao does not specifically disclose initializing the back off timer is based on a random seed.

Mary teaches initializing the back off timer is based on a random seed (see column 12, lines 1-21).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Mary into the system of Zhao in order to protect the exchange of keys and synchronization form interruptions in the communication channel (see Mary, column 2, lines 24-26).

This is a <u>provisional</u> obviousness-type double patenting rejection.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 2-6, 9, 10, 12-16, 18 and 21-27 are rejected under 35 U.S.C. 102(e) as being anticipated by Virtanen (US 6,249,681).

Art Unit: 2617

Regarding claims 12 and 21, Virtanen teaches a method of automatically reestablishing a data connection on a wireless data network (see Title and Abstract), comprising: determining, at minimum fixed time intervals determined by a service check timer, the status of a previously established data connection (see Abstract, column 2, line 36 to column 3, line 9, column 4, lines 21-67, column 8, lines 19-63 and column 10, lines 23-62, see "time" or "timer"), automatically transmitting a connection request if the previously established data connection is determined to be lost (see column 1, lines 59-67, column 4, lines 44-67, column 5, lines 1-15 and column 12, line 3 to column 13, line 8, see "request"), and re-establishing the previously established data connection if the transmitted connection request is accepted by the wireless data network (see column 1, lines 34-40, see "an ongoing call... is broken while the call is in progress, the call must be re-established in order for the call to be completed", and it reads on Applicant's "previously established").

Regarding claims 2 and 22, Virtanen further teaches the wireless data network is a CDMA2000 network (see column 6, lines 52-55, column 10, lines 5-10 and column 13, line 60 to column 14, line 21).

Regarding claim 3, Virtanen further teaches determining that no data connection is previously established includes receiving a refusal of service message from the wireless data network (see Abstract and column 4, lines 44-67).

Regarding claim 4, Virtanen further teaches the refusal of service message is one of Retry Order, Reorder Order and a Release Order (see column 2, lines 46-53 and column 4, lines 21-67).

Page 8

Regarding claim 5, Virtanen further teaches further including initializing a back off timer on receipt of the refusal of service message (see Abstract, column 2, line 36 to column 3, line 9, column 4, lines 21-67, column 8, lines 19-63 and column 10, lines 23-62).

Regarding claim 6, Virtanen further teaches the refusal of service message is an Intercept Message (see column 2, lines 46-53 and column 4, lines 21-67).

Regarding claim 9, Virtanen further teaches initializing the back of timer is based on a retry delay specified by the Retry Order (see column 2, lines 46-53 and column 4, lines 21-67).

Regarding claim 10, Virtanen further teaches the back off timer is initialized to a time greater than or equal to the retry delay (see Abstract, column 2, line 36 to column 3, line 9, column 4, lines 21-67, column 8, lines 19-63 and column 10, lines 23-62).

Regarding claim 13, Virtanen further teaches determining the status of the previously established data connection is preceded by initializing the service check timer (see Abstract, column 2, line 36 to column 3, line 9, column 4, lines 21-67, column 8, lines 19-63 and column 10, lines 23-62).

Regarding claim 14, Virtanen further teaches the step of automatically transmitting the connection request is performed upon expiry of a back off timer (see Abstract, column 2, line 36 to column 3, line 9, column 4, lines 21-67, column 8, lines 19-63 and column 10, lines 23-62).

Regarding claim 15, Virtanen further teaches the back off timer is initialized to a value based on a retry delay determined in response to a refusal of service message (see column 2, lines 46-53 and column 4, lines 21-67).

Regarding claim 16, Virtanen further teaches determining the status of the previously established data connection includes comparing assigned network resources to default values (see column 42, lines 21-67).

Regarding claim 18 and 25, Virtanen further teaches a step of forcing premature expiry of the service check timer upon receipt of a Release Order (see column 2, lines 46-53 and column 4, lines 21-67).

Regarding claim 23, Virtanen further teaches the connection manager includes means to reset the back off timer in response to the receipt of one of a Retry Order, Reorder Order and a Release Order (see column 2, lines 46-53 and column 4, lines 21-67).

Regarding claim 24, Virtanen further teaches the connection manager includes an accumulator for tracking consecutive rejections of service, and means to reset the back off timer in accordance with the number of consecutive rejections (see column 2, lines 46-53 and column 4, lines 21-67).

Regarding claim 26, Virtanen further teaches the means to reset the back off timer includes means to reset the back off timer such that the back off time is greater than, or equal to, a retry delay determined in response to a Retry Order or a Release Order (see column 2, lines 46-53 and column 4, lines 21-67).

Art Unit: 2617

Regarding claim 27, Virtanen further teaches the connection request is automatically transmitted upon detection of a new wireless data network (see Abstract).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

- 8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
- 9. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Virtanen (US 6,249,681) in view of Marry et al (US 4,827,507).

Regarding claim 7, Virtanen teaches claim 14. Virtanen does not specifically disclose initializing the back off timer is based on a random seed.

Mary teaches initializing the back off timer is based on a random seed (see column 12, lines 1-21).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Mary into the system of Virtanen in order to protect the exchange of keys and synchronization form interruptions in the communication channel (see Mary, column 2, lines 24-26).

Regarding claim 8, Virtanen further teaches the back off timer is initialized to a time greater than or equal to any back off timer time calculated after a last previously established data connection (see column 4, lines 37-51).

10. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Virtanen (US 6,249,681).

Regarding claim 17, Virtanen teaches claim 16 except that the step of comparing includes determining that no data connection is established when an assigned Internet Protocol address is set to 0.0.0.0.0. However, such Internet Protocol address is set to 0.0.0.0.0. would have been obvious since the particular Internet Protocol address could have been determined by the inventor's choice e.g., use an Internet Protocol address which can improve reconnection attempts in the communication network.

11. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Virtanen (US 6,249,681) in view of Official notice.

Art Unit: 2617

Regarding claim 19, Virtanen teaches claim 18 except that the Release Order is a Point-to-point-protocol termination request. However, the Examiner takes Office notice that such feature as recited in the claim is very well known in the art.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teaching of Virtanen for providing a method as claimed, for obtaining reconnection in communication network.

12. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Virtanen (US 6,249,681) in view of Hunzinger (US 2002/0082032A1).

Regarding claim 20, Virtanen teaches claim 12. Virtanen does not specifically disclose the connection request is an Origination Message.

Hunzinger (US 2002/0082032A1) teaches the connection request is an Origination Message (see [0007]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Hunzinger into the system of Virtanen in order to allow the infrastructure to adapt access parameter to increase or decrease the likelihood of successful access (see Hunzinger, Abstract).

Response to Arguments

13. Applicant's arguments with respect to claims 2-10 and 12-27 have been considered but are moot in view of the new ground(s) of rejection.

Art Unit: 2617

Conclusion

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nghi H. Ly whose telephone number is (571)272-7911. The examiner can normally be reached on 9:30am-8:00pm Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dwayne Bost can be reached on (571) 272-7023. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Nghi H. Ly

/Nghi H. Ly/

Primary Examiner, Art Unit 2617